

CLAIMS

1. A device for closing an opening, particularly a street manhole, of the type that comprises

- a frame (4);
- a cover (6) articulated relative to the frame (4) around a first horizontal axis (X-X) via at least one first hinge (14) between an open position and a closed position, this hinge (14) comprising a cover knuckle (20) and a cooperating frame knuckle (24);

- a locking device (16) having a locked configuration in which the cover (6) is in a first position relative to the frame and is maintained in a locked-open position, and an unlocked configuration in which the cover (6) is in a second position relative to the frame, wherein the cover (6) can be pivoted around the first axis (X-X),

characterized in that the said first hinge (14) is designed to permit pivoting of the cover (6), while bearing on the frame (4), around a second axis (Y-Y) that extends substantially perpendicularly relative to the said first axis (X-X) and horizontally in the mounted condition of the device (2), and in that the cover (6) is designed to be moved from the said first position relative to the frame toward the said second position relative to the frame and vice versa by pivoting the cover (6) around the said second axis (Y-Y).

2. A device according to claim 1, characterized in that the cover (6) is articulated to the frame (4) via a second hinge (16) comprising a cover knuckle (18) and a frame knuckle (22), and in that the locking device is formed by this second hinge (16), which is designed to lock and unlock the cover (6) in its open position by displacement of its cover knuckle (18) relative to its corresponding frame knuckle (22) in a substantially radial direction relative to the said first axis

(X-X).

3. A device according to claim 1 or 2, characterized in that the device (2) defines a plane of gravity (P-P) containing the center of gravity (G) of the cover (6), extending perpendicularly to the said first axis (X-X) and intersecting the said first axis (X-X) at a reference point (L), this reference point (L) and the said second axis (Y-Y) defining a first distance (d₁), in that the cover (6) has an end point (H), which defines a maximum lever arm relative to the said second axis (Y-Y), measured along the said first axis (X-X), and in that a second distance (d₂), measured along the said first axis (X-X) between this end point (H) and the said second axis (Y-Y), is longer than the said first distance (d₁).

4. A device according to claim 3, characterized in that the said second distance (d₂) is longer than three times the said first distance (d₁).

5. A device according to claim 3 or 4, characterized in that the said first distance (d₁) is shorter than a third distance (d₃) between the said second hinge (16) and the said second axis (Y-Y).

6. A device according to one of claims 3 to 5, characterized in that, relative to the said second axis (Y-Y), the said reference point (L) and the said second hinge (16) are disposed on the same side of the said first axis (X-X).

7. A device according to any one of claims 2 to 6, characterized in that the said second hinge (16) is designed to be locked by displacement of its cover knuckle (18) substantially vertically downward in the mounted condition of the device (2).

8. A device according to claim 7, characterized in that the frame knuckles (22, 24) are formed by seats (30, 32) that are upwardly open in the mounted condition of the device, and in that the cover knuckles (18, 20) are formed by pivots (26, 28) connected to the cover.

9. A ~~manhole~~ device according to claim 8, characterized in that the seat (30) of the said second hinge (16) has a depth greater than the depth of the seat (32) of the said first hinge (14), measured vertically relative to the said first axis (X-X).

10. A device according to claim 9, characterized in that the seat (32) of the said first hinge (14) is provided with a bottom wall (54) on which there bears the cover knuckle (20) of the said first hinge (14), and in that the seat (30) of the said second hinge (16) is provided with an opening (48) and a blocking surface (50) designed to cooperate with the pivot (26) of the said second hinge (16) when the second hinge (16) is in its locked position.

11. A device according to any one of claims 1 to 10, characterized in that the cover (6) has circular general shape

12. A device according to any one of claims 1 to 10, characterized in that the cover (6) has triangular general shape and in that the said first hinge (14) and the locking device (16) are disposed on the same side of the triangle.

13. A device according to claim 12, characterized in that the triangle is a right triangle, the said same side of the triangle being one side of the right angle of the triangle, and in that the locking device (16) is situated closer to the other side of the right angle than the said first hinge (14).

14. A device according to any one of the preceding claims, characterized in that the cover is a sealing lid (6).

15. A device according to any one of the preceding claims, characterized in that the locked-open position and the closed position define an angle of substantially 90° between one another.